



WILDLIFE MANAGEMENT TECHNIQUES - PRESCRIBED STRIP BURNING

In order to provide feeding, nesting, and brood cover for bobwhite quail, a rotational strip-burning program can be initiated within old fields or areas established to grass. Many other wildlife species using grassland/early successional habitat will also benefit from this practice. To keep these areas in desirable vegetation, they must be managed on a recurring schedule. Burning on a 2-3 year cycle will produce many benefits including: increasing diversity of plant species, setting back succession of woody vegetation, removing thick ground litter, scarification and germination of seeds, and increasing insect populations. The best time to burn is from late winter to early spring, prior to the beginning of the reproduction season of most wildlife species. This practice can be rotated with disking to get an even better diversity of desirable plants. Fertilizer (0-20-20) may be applied to improve production of legumes on burned areas.

Two Year Rotation Example:

Divide each field into adjacent plots, with each plot containing 2 strips of land 30 to 50 feet in width, resulting in each plot being 60 to 100 feet wide. In addition, a firebreak must be established between each strip. In fall or spring of the first year, within each plot, burn the first strip of land and leave the second strip "unburned." In fall or spring of the second year, within each plot, burn the second strip and protect the first strip burned the previous year. In fall or spring of the third year, within each plot, burn the first strip burned during year 1, protecting the strip burned in year 2. Continue this rotation treatment, burning strips every other year.

Three Year Rotation Example:

Divide each field into adjacent plots, with each plot containing 3 strips of land 30 to 50 feet in width, resulting in each plot being 90 to 150 feet wide. In addition, a firebreak must be established between each strip. In fall or spring of the first year, within each plot, burn the first strip of land and leave the second and third strip "unburned." In fall or spring of the second year, within each plot, burn the second strip and protect the first (burned during previous year) and third strip. In fall or spring of the third year, within each plot, burn the third strip and protect the first (burned during year 1) and second (burned during year 2) strips. In the fall or spring of the fourth year, within each plot, burn the first strip (burned in year 1) and protect the second (burned during year 2) and third (burned during year 3) strips. Continue this rotation treatment, burning strips every third year.

Prescribed Burning Plan

Use of prescribed burning carries with it the obligation and responsibility to minimize adverse effects to air quality and the chance of a smoke-related accident from occurring. This is best accomplished by utilizing a prescribed burning plan. The prescribed burning plan should cover the essentials of weather, terrain, and fuels that allow a burn to accomplish its objectives without incident. The prescribed burning plan must be prepared before carrying out a prescribed burn. Also, the date of the plan must be documented by having the plan notarized prior to the burn.

On the day the burn is done, a burning permit must be obtained from the Mississippi Forestry Commission (MFC). The following information must be recorded on the burning plan:
1) burning permit number, and 2) time of day permit is in effect as determined by Stagnation Index reading.

Very Important: A certified prescribed burn manager must supervise the burn.

Prescribed Burning Permit

To conduct a burn legally you must:

1. Obtain a burning permit from the Mississippi Forestry Commission.
2. Burn within the time limits specified by Stagnation Indices, which are provided by MFC when issuing a permit.
3. Not use a starter or auxiliary fuels that produce excessive visible emissions.

The burning permit system administered by the Mississippi Forestry Commission consists of a verbal authorization to burn, obtained by calling MFC. If atmospheric conditions are at least at a minimum for adequate smoke dispersal, a permit number will be given to the caller. A written record of the following information is made at the time of permit request and maintained as a state document:

1. Type burn and number of acres involved.
2. Purpose of the burn.
3. Name of landowner, address and phone number of person responsible for burn.
4. Legal location of burn site (section, township, and range).
5. Time period covered by permit.
6. Permit number.

Daytime Stagnation Index

- 0 - Burning permitted from sunrise to sunset
- 1 - Burning permitted from 1 hour after sunrise until sunset
- 2 - Burning permitted from 2 hours after sunrise until sunset
- 3 - Burning permitted from 2 hours after sunrise until 1 hour before sunset

Nighttime Stagnation Index

- 0 - Night burning permitted from sunset to sunrise
- 1 - Night Burning permitted until 2 hours before sunrise
- 2 - Night Burning permitted until 4 hours after sunset
- 3 - Night burning not permitted

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